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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/724,118

12/01/2003

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20987 7590 01/10/2007
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EXAMINER

FILE, ERIN M

ART UNIT

PAPER NUMBER

2611

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/724,118	Applicant(s) SHIMOTOYODOME, TSUTOMU	
	Examiner Erin M. File	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 01 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/1/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(b) because they are incomplete. 37 CFR 1.83(b) reads as follows:

When the invention consists of an improvement on an old machine the drawing must when possible exhibit, in one or more views, the improved portion itself, disconnected from the old structure, and also in another view, so much only of the old structure as will suffice to show the connection of the invention therewith.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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2. The drawings are incomplete as they do not illustrate a method as described in claims 5-7.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. Examples of structurally unclear language include:

Claim 1, "stops an output signal while maintaining a frequency of said output signal"

Claim 2, "an output signal is stopped while maintaining a frequency of said output signal"

Claim 5, "changing coefficients of said multipliers while said signal generator is outputting a desired signal and stopping the output of said desired signal"

The structure of claim 5 requires that signal generator is simultaneously outputting and stopping the output of the desired signal. Claims 1 and 2 are similarly unclear.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 2 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee et al. (U.S. Pub. 2002/0021749).

Claim 2, Lee discloses a signal generator includes a selector to select a predetermined one of a plurality of set values which have been preset as coefficients of said multipliers, and said predetermined value is selected and output of an output signal is stopped while maintaining a frequency of said output signal ([0037], lines 4-6).

Claim 5, Lee discloses changing coefficients of said multipliers while said signal generator is outputting a desired signal and stopping the output of said desired signal ([0037], lines 4-6).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (U.S. Patent No. 6,256,383) in view of Lee et al. (U.S. Pub. 2002/0021749).

Claim 1, Chen discloses a signal generator including a control unit which changes coefficients of said multipliers (multipliers of fig. 3 receive the coefficients $w_{k1...n}$ from the coefficients generated by the integrator, col. 7, lines 49-51, fig. 3, 90), and said control unit changes said coefficients and stops an output signal while maintaining a frequency of said output signal (the coefficients converge toward zero energy error, col. 8, lines col. 8, lines 41-45). Although Chen fails to disclose that the coefficients are predetermined values, Lee discloses selecting IIR coefficients from predetermined sets of coefficient values ([0037], lines 4-6). Because the use of known predetermined coefficient values reduces the calculation time for coefficient determination, it would have been obvious to one skilled in the art at the time of invention to incorporate the coefficient selection as disclosed by Lee into the invention of Chen.

9. Claims 3/1 and 4/3/1 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (U.S. Patent No. 6,256,383) and Lee et al. (U.S. Pub. 2002/0021749) as applied to claim 1 above, and further in view of Eran et al. (U.S. Patent No. 6,862,326).

Claim 3/1, neither Chen nor Lee disclose poles of a transfer function of said IIR type digital filter are set to an inside of a unit circle on a Z plane, however, Eran discloses poles of a transfer function of said IIR type digital filter are set to an inside of a unit circle on a Z plane (col. 12, lines 55-58). Because Eran discloses these restrictions allow for filtering stability, it would have been obvious to one skilled in the art at the time of

invention to incorporate the transfer function as disclosed by Eran into the combined invention of Chen and Lee.

Claims 4/3/1, neither Chen nor Lee disclose the poles of said transfer function, a ratio of a value on an imaginary axis to a value on a real axis of said poles before said coefficients are changed and that after the change of said coefficients are set to an equal value, however, Eran discloses the poles of said transfer function, a ratio of a value on an imaginary axis to a value on a real axis of said poles before said coefficients are changed and that after the change of said coefficients are set to an equal value (col. 12, lines 55-58). Because Eran discloses these restrictions allow for filtering stability, it would have been obvious to one skilled in the art at the time of invention to incorporate the transfer function as disclosed by Eran into the combined invention of Chen and Lee.

10. Claims 3/2, 4/3/2, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (U.S. Pub. 2002/0021749) as applied to claim 1 above, and further in view of Eran et al. (U.S. Patent No. 6,862,326).

Claims 3/2, 6, Lee fails to disclose poles of a transfer function of said IIR type digital filter are set to an inside of a unit circle on a Z plane, however, Eran discloses poles of a transfer function of said IIR type digital filter are set to an inside of a unit circle on a Z plane (col. 12, lines 55-58). Because Eran discloses these restrictions allow for filtering stability, it would have been obvious to one skilled in the art at the time of invention to incorporate the transfer function as disclosed by Eran into the invention of Lee.

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Claims 4/3/2, 7, Lee fails to disclose the poles of said transfer function, a ratio of a value on an imaginary axis to a value on a real axis of said poles before said coefficients are changed and that after the change of said coefficients are set to an equal value, however, Eran discloses the poles of said transfer function, a ratio of a value on an imaginary axis to a value on a real axis of said poles before said coefficients are changed and that after the change of said coefficients are set to an equal value (col. 12, lines 55-58). Because Eran discloses these restrictions allow for filtering stability, it would have been obvious to one skilled in the art at the time of invention to incorporate the transfer function as disclosed by Eran into the invention Lee.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erin M. File whose telephone number is (571)272-6040. The examiner can normally be reached on M-F 1:00PM-9:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Erin M. File



1/2/2007



MOHAMMED GHAYOUR
SUPERVISORY PATENT EXAMINER